

United States Court of Appeals For the First Circuit

No. 00-2425

PHILIP MORRIS, INCORPORATED, ET AL.,

Plaintiffs, Appellees,

v.

THOMAS F. REILLY,
ATTORNEY GENERAL OF MASSACHUSETTS, ET AL.,

Defendants, Appellants.

No. 00-2449

UNITED STATES TOBACCO COMPANY, ET AL.,

Plaintiffs, Appellees,

v.

THOMAS F. REILLY,
ATTORNEY GENERAL OF MASSACHUSETTS, ET AL.,

Defendants, Appellants.

APPEALS FROM THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS
[Hon. George A. O'Toole, Jr., U.S. District Judge]

Before
Torruella, Selya and Lipez,
Circuit Judges.

William W. Porter, Assistant Attorney General, with whom
Thomas A. Barnico, Assistant Attorney General, and Thomas F.
Reilly, Attorney General, were on brief for appellants.

Douglas N. Letter, Appellate Litigation Counsel, Civil Division, Department of Justice, for amicus United States.

Henry C. Dinger, P.C., with whom Goodwin Procter LLP, John H. Henn, Foley, Hoag & Eliot LLP, John Connarton, Connarton, Wood & Callahan, Richard M. Zielinski, Hill & Barlow, Clausen Ely, Jr., Patricia A. Barald, and Covington & Burling, were on brief for appellees Philip Morris, Inc., et al.

John L. Oberdorfer, with whom Patton Boggs LLP, A. Hugh Scott, Choate, Hall & Stewart, Peter J. McKenna, Eric S. Sarnier, and Skadden, Arps, Slate, Meagher & Flom LLP, were on brief for appellees United States Tobacco Company, et al.

December 2, 2002

EN BANC OPINION

TORRUELLA, Circuit Judge. Unquestionably, tobacco is subject to heavy regulation by federal and state governments. This case concerns one attempt, by Massachusetts, to further regulate tobacco products by requiring tobacco companies to submit to Massachusetts the ingredient lists for all cigarettes, snuffs, and chewing tobaccos sold in the state. For each brand, the manufacturer must list, by relative amount, all ingredients besides tobacco, water, or reconstituted tobacco sheet. Mass. Gen. Laws ch. 94, § 307B (2002). Currently, the appellees, a group of tobacco companies, treat these ingredient lists as trade secrets and either do not disclose brand-specific information at all or do not disclose it without some guarantee of confidentiality.

The tobacco companies brought suit claiming that the Massachusetts statute, which allows the public disclosure of these ingredient lists whenever such disclosure "could reduce risks to public health," Mass. Gen. Laws ch. 94, § 307B, creates an unconstitutional taking. Appellees also argued that the Massachusetts statute violates their Due Process rights by effecting a taking of their property without first providing a meaningful opportunity to be heard. The district court concurred and granted summary judgment in favor of the tobacco companies. A divided panel of this Court rejected appellees' arguments and reversed the district court's judgment. After en banc review, however, Judge Selya and I agree with the district court and,

therefore, affirm its grant of summary judgment and award of injunctive and declaratory relief in favor of plaintiffs-appellees.

I.

Factual Background

Appellees are various manufacturers of cigarettes and smokeless tobacco products.¹ They all currently sell their products in Massachusetts and are potentially subject to the requirements of Mass. Gen. Laws ch. 94, § 307B ("Disclosure Act").

Defendants-appellants are the Attorney General of Massachusetts and the Massachusetts Commissioner of Public Health.

A. The Ingredient Lists

All of the tobacco products manufactured by appellees include a variety of additives (in addition to tobacco, water, and reconstituted tobacco sheet). For example, common ingredients include sugars, glycerin, propylene glycol, cocoa, and licorice. These various additives are used as solvents, processing aids, pH modifiers, formulation aids for reconstituted tobacco, preservatives, humectants, tobacco protection aids, "plasticizing" agents, and, perhaps most importantly, flavorings. It is undisputed that appellees have spent millions of dollars developing

¹ The cigarette manufacturers joined in this case are Philip Morris Inc., R.J. Reynolds Tobacco Co., Brown & Williamson Tobacco Corp., and Lorillard Tobacco Co. The smokeless tobacco companies are U.S. Smokeless Tobacco Co., Brown & Williamson Tobacco Corp., National Tobacco Co., Pinkerton Tobacco Co., and Swisher International, Inc.

formulas for their different brands, and when successful, those brands are worth billions of dollars. A major factor of each brand's success is its distinctive flavor, taste, and aroma.

While appellants argue that the added ingredients are neither pre-approved by regulators nor tested for safety, it is undisputed that most of the added ingredients are approved for consumption in food or "Generally Recognized As Safe" by the Food and Drug Administration. The one additive not found on either list is denatured alcohol, and this has been approved by the Bureau of Alcohol, Tobacco, and Firearms for use in the manufacture of tobacco products.

Each of the appellees closely guards its valuable ingredient lists. For example, within each company, only a few individuals are privy to the entire formula for any one brand. Suppliers are subject to confidentiality agreements and ship their products in packages which disguise their contents.

It is true that some ingredients of particular brands are known, and all ingredients used in any tobacco product are publicly available. However, this does not mean that complete brand-specific ingredient information can be obtained. In fact, various appellees have tried to "reverse engineer" the formulas of their competitors, but these attempts have been unsuccessful. Apparently, they have been able to determine the chemical composition of the various brands, but this information does not

translate into a formula to recreate the product. Appellees assert, however, that if they were able to combine the chemical composition derived from this "reverse engineering" with a list of specific ingredients, arranged by relative amount, it would be much easier to discover a competitor's formula. Therefore, the tobacco companies argue that publication of their ingredient lists, organized by relative amount, on a brand-by-brand basis would likely destroy the secrecy of their formulas. This contention is not disputed by appellants.

B. Current Federal and State Disclosure Requirements

Tobacco companies currently have to disclose their ingredient lists to both the federal government and at least two state governments.

The federal government requires only that an aggregate list of all ingredients used in cigarettes and smokeless tobacco products be provided to the Department of Health and Human Services. 15 U.S.C. § 1335a(a). These lists, each of which contains hundreds of ingredients, neither identify the ingredients in any particular brand nor reveal which ingredients are used by which manufacturer. Id. The Department of Health and Human Services can study and report to Congress on the health effects of tobacco additives, including information on specific ingredients which may pose a health risk to consumers. Id. at § 1335a(b) (1) (A)-(B). However, without further legislation and disclosure,

the federal government has no ability to warn consumers of the use of harmful additives in specific brands.

Two states, besides Massachusetts, require some disclosure of additives to tobacco products. Minnesota mandates that tobacco companies report only the use of several targeted additives in their products. Minn. Stat. § 461.17 (Supp. 1997). Texas requires that the tobacco companies report brand-specific ingredient information, in descending quantities. Tex. Health & Safety Code Ann. §§ 161.351-55 (West Supp. 2001). While this scheme superficially looks like the challenged Massachusetts legislation, Texas protects the ingredient lists by prohibiting public disclosure when those lists would be considered trade secrets under either federal or state law. Id. at § 161.254(c). The tobacco companies have complied and continue to comply with these disclosure requirements and have never challenged their validity.

C. The Disclosure Act

In 1996, Massachusetts enacted the Disclosure Act, ostensibly to promote public health. Citing the fact that various tobacco product additives may have adverse health effects when burned, either alone or in combination with other additives, Massachusetts expressed an interest in being able to study more accurately the health effects of tobacco products on consumers. Massachusetts was also concerned that certain additives may

increase nicotine delivery and that those additives might be used in cigarettes advertised as having a lower nicotine content.

In Massachusetts' view, previous disclosure requirements did not allow it to investigate adequately these public health concerns. For example, the publicly available ingredient lists do not identify additives according to brand or manufacturer. Therefore, Massachusetts could not study the interaction of additives and know whether those additives are actually combined. Nor could Massachusetts study the additives used in more popular brands and those brands targeted to younger consumers. No one disputes that these suggested studies are laudable and within the health and safety realm of the state's traditional police powers.

Massachusetts, however, has an additional goal to be realized through the Disclosure Act: it hopes to publicize the ingredient lists of various brands. This information, Massachusetts believes, will help consumers make more informed choices about the tobacco products they choose to consume. The envisioned effect is greater public awareness about the potential health effects of tobacco additives.

With these considerations in mind, Massachusetts enacted the Disclosure Act, which reads, in relevant part:

For the purpose of protecting the public health, any manufacturer of cigarettes, snuff or chewing tobacco sold in the commonwealth shall provide the department of public health with an annual report, in a form and at a time specified by that department, which lists for

each brand of such product sold the following information:

(a) The identity of any added constituent other than tobacco, water or reconstituted tobacco sheet made wholly from tobacco, to be listed in descending order according to weight, measure, or numerical count; and

. . . [Any] information in the annual reports with respect to which the department determines that there is a reasonable scientific basis for concluding that the availability of such information could reduce risks to public health, shall be public records; provided, however, that before any public disclosure of such information the department shall request the advice of the attorney general whether such disclosure would constitute an unconstitutional taking of property, and shall not disclose such information unless and until the attorney general advises that such disclosure would not constitute an unconstitutional taking.²

Mass. Gen. Laws § 307B (emphasis added). Therefore, the Disclosure Act establishes two threshold requirements before an ingredient list "shall" be made public: (1) there must be a finding that publication "could reduce risks to public health;" and (2) the Massachusetts Attorney General must find that disclosure would not be an unconstitutional taking. Id.

² The Disclosure Act also requires the tobacco companies to disclose the nicotine yield ratings for each brand. Mass. Gen. Laws § 307B. This information may also be made public, according to the same guidelines governing the disclosure of the ingredient lists. The tobacco companies have not challenged this element of the Disclosure Act and, in fact, have been complying with it.

Some further requirements have been established by regulations enacted under the Disclosure Act. Mass. Regs. Code tit. 105, § 660.200. These regulations require the Massachusetts Department of Public Health ("DPH") to provide sixty days' notice to the manufacturer before the proposed disclosure. Id. at § 660.200(E). To prevent disclosure, the manufacturer may remove its product from Massachusetts or reformulate it. Id. at § 660.200(F). An amendment to the regulations also allows the manufacturer to suspend disclosure by filing a lawsuit. Id. at § 660.200(G). Finally, until all requirements of the Disclosure Act and its enabling regulations have been met, the regulations provide that the DPH will keep the tobacco companies' ingredient lists confidential. Id. at § 660.200(G)(2).

II.

Procedural Background

The various tobacco companies filed this action in 1996, shortly after the Disclosure Act was enacted.³ Their complaint alleges that the Disclosure Act violates various provisions of the United States Constitution: the Commerce, Takings, and Due Process Clauses. U.S. Const. art. I, § 8, cl. 3, amend. V; amend. XIV.

A threshold issue arose as to whether the Disclosure Act is preempted by either the Federal Cigarette Labeling and

³ The cigarette and smokeless tobacco manufacturers originally filed two separate suits. They were consolidated for trial and on appeal.

Advertising Act, 15 U.S.C. § 1331-41, or the Comprehensive Smokeless Tobacco Health Education Act of 1986, 15 U.S.C. § 4401-08. The district court held that there was no preemption, and we affirmed. Philip Morris, Inc. v. Harshbarger, 122 F.3d 58 (1st Cir. 1997) [hereinafter Philip Morris I].

Thereafter, the tobacco companies moved for a preliminary injunction based on their constitutional claims. On December 10, 1997, the district court entered an order that preliminarily enjoined appellants from enforcing the ingredient-reporting provisions of the Disclosure Act until further order of the court. On an interlocutory appeal, we again affirmed. Philip Morris, Inc. v. Harshbarger, 159 F.3d 670 (1st Cir. 1998) [hereinafter Philip Morris II]. We found that the district court had neither "committed a clear error of law [nor] an abuse of discretion" in finding that the tobacco companies showed a reasonable likelihood of success on their claim that the Disclosure Act violates the Takings Clause. Id. at 680.

Following this affirmance, all parties filed motions for summary judgment. On September 7, 2000, the district court entered a Memorandum and Order granting the tobacco companies' motions and denying appellants' motion for summary judgment. Philip Morris, Inc. v. Reilly, 113 F. Supp. 2d 129 (D. Mass. 2000) [hereinafter Philip Morris III]. The court found that the Disclosure Act violates the Takings, Due Process, and Commerce Clauses and issued

a permanent injunction forbidding Massachusetts from requiring the disclosure of brand-specific ingredient information from the tobacco companies. Id. at 151.

Appellants filed timely appeals in which they challenged the district court's findings on the constitutional claims. Additionally, they argued that the tobacco companies' claims are not ripe because the Disclosure Act does not mandate publication of the submitted ingredient lists. In an opinion which has subsequently been withdrawn, a divided panel of this Court reversed. It found that the tobacco companies' claims are ripe, but agreed with appellants that the Disclosure Act does not violate the Takings, Due Process, or Commerce Clauses. The dissent agreed that the claims are ripe and the Disclosure Act does not contravene the Commerce Clause. However, it found violations of both the Takings and Due Process Clauses.

After a timely petition, we granted en banc review as to whether the Disclosure Act violates either the Takings or Due Process Clauses. Our review does not include revisiting the issues of whether the tobacco companies' claims are ripe or whether the Disclosure Act violates the Commerce Clause.

III.

Standard of Review

Because this case reaches us on appeal from a grant of summary judgment, I review the district court's judgment de novo.

Euromotion, Inc. v. BMW of N. Am., Inc., 136 F.3d 866, 869 (1st Cir. 1998).

IV.

Takings Analysis

The tobacco companies allege, and the district court found, that the Disclosure Act unconstitutionally takes the tobacco companies' property when it requires the tobacco companies to disclose their ingredient lists to Massachusetts, which may, in turn, publish those lists. To support this claim, the tobacco companies first argue that their ingredient lists are trade secrets and, as such, are property protected by the Takings Clause. Second, they argue that the public disclosure of these trade secrets destroys their value, thereby effecting a taking. Appellants counter with two separate arguments. First, they claim that the tobacco companies' interest in keeping their ingredient lists secret does not defeat the state's ability to require public disclosure where, as here, the requirement is "rationally related to a legitimate governmental interest." Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1007 (1984). The asserted legitimate governmental interest is the health and safety of its citizens. Second, appellants dispute that Massachusetts law creates a property interest in trade secrets that are required by law to be disclosed to public agencies. I begin with analysis of the

question of whether Massachusetts law protects the tobacco companies' ingredient lists as trade secrets.

A. Trade Secret Protection in Massachusetts

In most states, trade secrets are property protected by the Takings Clause, see Monsanto, 467 U.S. at 1003-04 (holding that Missouri law, which follows the Restatement of Torts, creates cognizable property right in trade secrets), and neither side disputes that Massachusetts has long recognized and protected trade secrets. See Jet Spray Cooler, Inc. v. Crampton, 385 N.E.2d 1349, 1354 (Mass. 1972) (noting that Massachusetts has protected trade secrets based on public policy principles since at least 1868). Also, neither side suggests that Massachusetts treats trade secrets differently from other states or argues that the district court's application of the Restatement (First) of Torts was incorrect. See Philip Morris III, 113 F. Supp. at 135-36. Finally, appellants do not contest that the tobacco companies' ingredient lists are trade secrets.⁴

Rather, appellants make a more subtle, but nonetheless ultimately ineffective, argument. Despite recognizing that Massachusetts' laws provide a remedy for misappropriation of trade

⁴ In regard to the ripeness issue, which is not currently before us, appellants did claim that elements of the ingredient lists are not trade secrets as certain ingredients are widely known and published by the tobacco companies, themselves. However, appellants did not argue before the en banc court that the ingredient lists, in their entirety, are other than trade secrets.

secrets by private actors, see Junker v. Plummer, 67 N.E.2d 667, 669-70 (Mass. 1946), appellants argue that Massachusetts has long established that it can require public disclosure of trade secrets to advance public health and safety.

In support of this argument, appellants first point to the Restatement (First) of Torts which says that the law may require the disclosure of a trade secret to "promote some public interest." § 757, cmt. d (1939). Certainly, courts have long recognized that trade secrets generally can be subject to disclosure under certain limited circumstances. See, e.g., Corn Prods. Ref. Co. v. Eddy, 249 U.S. 427, 431-32 (1919) (upholding required disclosure of ingredient lists to prevent consumer fraud) [hereinafter Corn Prods. II]. However, the fact that the public interest can sometimes override private property interests does not establish that the tobacco companies have no cognizable property interest when a state decides that publication of their trade secrets will further public health. In fact, Massachusetts continues to protect the integrity of many trade secrets despite the potentially valuable impact on the public interest if those trade secrets were to be placed in the public sphere. See, e.g., Gen. Chem. Corp. v. Dep't of Env't Quality Eng'g, 474 N.E.2d 183, 185 (Mass. App. Ct. 1985) (discussing Massachusetts statute which specifically guarantees confidentiality of trade secrets belonging to hazardous waste industries and submitted pursuant to

regulations). Instead, the potential for mandated disclosure in the public interest forms part of the inquiry as to whether a particular disclosure requirement is constitutional. See Penn Cent. Transp. Co. v. City of New York, 438 U.S. 104, 124 (1978) (establishing reasonable investment-backed expectations as one prong of the regulatory takings inquiry) [hereinafter Penn Central]. Finally, the Supreme Court specifically found that jurisdictions which follow the Restatement create a cognizable property interest in trade secrets. Monsanto, 467 U.S. at 1003-04.

Second, appellants argue that General Chemical Corp. establishes that the state may generally seize trade secrets in the public interest. That case established no such proposition. Rather, the court only assumed, arguendo, that the state legislature could deprive hazardous waste industries of certain trade secrets in the context of regulating those industries. Id. at 185. Therefore, the case provides no notice that trade secrets are subject to disclosure.

Third, appellants point to the Massachusetts public records law which establishes that when a law requires trade secret information to be filed with a state agency, nothing requires those trade secrets to be treated as confidential. In fact, the public records law makes such information publicly available. See Mass. Gen. Laws ch. 4, § 7, cl. 26 (providing trade secret protection only when the information is submitted voluntarily, to further

public policy development, and with a guarantee of confidentiality). Therefore, appellants argue that the tobacco companies have no property interest in their ingredient lists once a law requires them to submit that information to the state. Whether Massachusetts guarantees the confidentiality of trade secrets once they have been submitted to a state agency has no bearing on whether Massachusetts creates a property interest in trade secrets that is protected by the Takings Clause. Holders of trade secrets can always voluntarily submit their information to a state, consequently losing their property right. See, e.g., Monsanto, 467 U.S. at 1006-07 (noting that Monsanto had voluntarily submitted its trade secrets information, knowing it was subject to public disclosure, as part of a regulatory scheme). The question is not whether trade secrets can be lost but whether trade secrets are a protected property interest in Massachusetts.

And the answer to that question is clear. Massachusetts protects trade secrets, Gen. Chem. Corp., 474 N.E.2d at 185 ("The words 'trade secret' are commonly thought to carry a connotation of a property interest."), and appellants fail to identify any background principles of state law that successfully obviate appellees' property interest in their trade secrets. The fact that trade secrets are potentially subject to disclosure does not destroy the tobacco companies' interest because trade secrets still enjoy general protection. See Palazzolo v. Rhode Island, 533 U.S.

606, 630 (2001) ("A regulation or common-law rule cannot be a background principle for some owners but not for others. The determination whether an existing, general law can limit all economic use of property must turn on objective factors . . . "). Specific laws simply cannot destroy property interests. In fact, this is precisely what the Takings Clause is designed to prevent: "a State, by ipse dixit, may not transform private property into public property without compensation. . . . This is the very kind of thing that the Taking Clause of the Fifth Amendment was meant to prevent. That clause stands as a shield against the arbitrary use of governmental power." Webb's Fabulous Pharmacies, Inc. v. Beckwith, 449 U.S. 155, 164 (1980). Massachusetts cannot provide trade secret protection to some parties and then refuse others the same protections. Therefore, it is clear that the tobacco companies have a property interest in their trade secrets that is implicated by the Disclosure Act. In light of this, I turn to the question of whether the Disclosure Act violates the Takings Clause.

B. The Takings Clause

The Supreme Court has distinguished between two branches of Takings Clause cases: physical takings and regulatory takings. See Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency, 122 S. Ct. 1465, 1479 (2002) (distinguishing "between acquisitions of property for public uses . . . and regulations prohibiting private uses") [hereinafter Tahoe-Sierra]; see also Yee

v. City of Escondido, 503 U.S. 519, 522 (1992) (delineating between claims of physical occupation and mere regulation). A physical taking occurs either when there is a condemnation or a physical appropriation of property. Tahoe-Sierra, 122 S. Ct. at 1478. Generally, courts apply "straightforward" per se rules when addressing physical takings. Id. A regulatory taking transpires when some significant restriction is placed upon an owner's use of his property for which "justice and fairness" require that compensation be given. Goldbatt v. Hempstead, 369 U.S. 590, 594 (1962); accord Penn. Coal Co. v. Mahon, 260 U.S. 393, 415 (1922) ("The general rule at least is that while property may be regulated to a certain extent, if that regulation goes too far it will be recognized as a taking."). For the most part, courts apply a three-part "ad hoc, factual inquiry" to evaluate whether a regulatory taking has occurred: (1) what is the economic impact of the regulation; (2) whether the government action interferes with reasonable investment-backed expectations; and (3) what is the character of the government action. Penn Central, 438 U.S. at 124. However, the Supreme Court has developed at least one per se rule in the regulatory takings sphere. See Tahoe-Sierra, 122 S. Ct. at 1480. When a regulation denies all economically beneficial or productive uses of land, it is a taking. Lucas v. S.C. Coastal Council, 505 U.S. 1003, 1015 (1992).

Here, there is an alleged taking of intellectual property -- trade secrets. The Supreme Court has addressed an alleged taking of trade secrets only once, in Monsanto. There, the Court simply applied the multi-factored regulatory takings analysis enunciated in Penn Central. Monsanto, 467 U.S. at 1004-06.⁵ It

⁵ The concurrence argues that the Supreme Court's application of the Penn Central factors essentially created a special rule for trade secrets that when "a trade secret holder has a reasonable investment-backed expectation that its trade secrets will remain secret, the sovereign's use or divulgement of that information constitutes a taking." Infra pp. 50-51. This reading of Monsanto is too broad. First, the Supreme court has frequently found that one of the Penn Central factors is dispositive. See, e.g., Hodel v. Irving, 481 U.S. 704, 716 (1987) (finding that the character of the government action involved determined the issues). This does not transform the inquiry for all subsequent cases which bear a close resemblance. Penn Central still provides the relevant inquiry. Second, the concurrence's reading of Monsanto needlessly calls into question the legitimacy of a whole host of statutes that mandate disclosure of private trade secret information under certain limited circumstances. See, e.g., 15 U.S.C. § 2613(a)(3) (providing that the EPA shall disclose confidential business information if "necessary to protect health of the environment against an unreasonable risk of injury to health or the environment.").

The concurrence attempts to argue that the broad reading of Monsanto does not call into question the legitimacy of many regulatory regimes. Unfortunately, the concurrence's argument is simply not persuasive. Section 2613(a)(3) provides for disclosures of data submitted under the Toxic Substances Control Act. 15 U.S.C. § 2601-92. Under this act, manufacturers of chemical substances are frequently required to submit data. For example, anyone who is going to manufacture or process a new chemical substance "is required to submit test data for [that] substance." 15 U.S.C. § 2604(b)(1)(A). The act provides no exemption for trade secret information, either in terms of required submissions or possible disclosures. As will be discussed more thoroughly below, Monsanto clearly establishes that a manufacturer who submits trade secret information under this provision will lose the right to subsequently claim an unconstitutional taking. 467 U.S. at 1006-07
(continued...)

⁵ (...continued)

(holding that when a manufacturer chose to submit trade secrets under statutes which allowed for future publication of that data, no taking occurred). This, however, does not mean that a manufacturer could not challenge the data submission and disclosure provisions before complying. That fact scenario is actually analogous to the current case.

The tobacco companies are challenging the Disclosure Act before complying with its provisions. They point to general laws protecting trade secrets as evidence of a reasonable investment-backed expectation that those trade secrets will remain protected property. The concurrence then wants to take that reasonable investment-backed expectation and say that Massachusetts can never override the tobacco companies' property interest without violating the Takings Clause:

[A]ctions speak louder than words. Once the Monsanto Court found that the trade secret holder possessed a reasonable investment-backed expectation in its trade secrets, the Court determined that such a taking, if not justly compensated, would be unconstitutional. Monsanto, 467 U.S. at 1013-14. This treatment mirrors a per se takings analysis.

Infra p.57 n.26. This means that a chemical manufacturer could claim that it has a reasonable investment-backed expectation under state law and, therefore, the federal government may not require submission and possible publication of its trade secrets. The situation is indistinguishable from the current case, and the concurrence's per se test leaves no room to consider the government's substantial interests in disclosure (protecting public health and the environment) or if the chemical manufacturer receives a valuable government benefit in return.

The concurrence asserts an additional distinction between the Disclosure Act and various federal statutes: "the statute provides fair warning, and the trade secret holder can assess for itself the likelihood that the government will reveal submitted information." Infra p. 51 n.23. At its heart, this argument boils down to a timing issue. The federal statutes are not new, and trade secret holders know that their trade secrets are potentially subject to disclosure. In contrast, the Disclosure Act is new, and the tobacco companies invested in and developed their trade secrets long before they became subject to disclosure. This, however is
(continued...)

failed to address any physical takings cases, id.,⁶ and therefore failed to resolve whether trade secrets can be the subjects of physical takings. Since the Supreme Court has previously limited

⁵ (...continued)

not a valid grounds on which to distinguish the Disclosure Act. In Palazzolo, the Court held that the fact a property owner acquired title to his land after the enactment of a regulation did not bar his claim that the regulation worked an unconstitutional taking. "It suffices to say that a regulation that otherwise would be unconstitutional absent compensation is not transformed into a background principle of the State's law by mere virtue of the passage of title." Id. at 629-30. Similarly, the fact that some statutes have been on the books for years cannot make those statutes constitutional and invalidate new statutes.

There is simply no persuasive distinction between many existing regulatory regimes and the Disclosure Act when they are analyzed only according to the trade secret holders' reasonable investment-backed expectations. A more nuanced inquiry is needed.

⁶ At the time Monsanto was decided, the most recent Supreme Court decision addressing the Takings Clause was Loretto v. Teleprompter Manhattan CATV Corp., 458 U.S. 419 (1982). Loretto has often been cited as a paradigmatic physical takings case. See, e.g., Yee, 503 U.S. at 522. Therefore, the fact that Monsanto failed to consider the implications of Loretto could be read as a decision that trade secrets may never be the subjects of physical takings. However, I decline to adopt that interpretation. First, Loretto is factually inapposite to Monsanto, making its decision of little import to the result in Monsanto. Second, Loretto itself applied the Penn Central framework which Monsanto relied upon. Loretto, 458 U.S. at 426. So, it was unclear whether Loretto should be considered as belonging to a separate line of cases. The Supreme Court only later clarified the distinctions between Loretto and Penn Central. See Yee, 503 U.S. at 522 (articulating that there are, in fact, two lines of Takings Clause cases). Third, the Supreme Court has never said that intellectual property cannot be the subject of physical takings, and I decline to read such a broad statement into the failure of one case to speak to that issue.

its analysis to the regulatory takings sphere, I choose to begin there.⁷

Before proceeding to the Penn Central analysis, I note that the tobacco companies argue that the Lucas per se rule governs this case.⁸ The decision in and reasoning behind Lucas certainly raise some interesting questions about the constitutionality of the Disclosure Act. However, I am uncomfortable with the suggestion that we simply import that per se rule into this case. Lucas dealt with real, not personal, property, and the Court cautioned that the value of personal property could be wiped out without triggering the strictures of the Takings Clause. 505 U.S. at 1027-28. This is not to say that Lucas is not relevant to the disposition of this

⁷ I note that the tobacco companies raise a physical takings claim when they argue that the Disclosure Act deprives them of the right to exclude others from their property, namely, their trade secrets. In Kaiser Aetna v. United States, 444 U.S. 164 (1979), the Supreme Court stated that "the 'right to exclude,' so universally held to be a fundamental element of the property right, falls within this category of interests that the Government cannot take without compensation." Id. at 179-80. Because the Disclosure Act gives Massachusetts the right to publish the ingredient lists, the tobacco companies say they have lost the ability to exclude others from their property. This, they claim, is a per se taking.

⁸ As noted above, Lucas states that there is a per se taking whenever regulation destroys all beneficial uses of land. 505 U.S. at 1015. Because they have lost the ability to exclude others from using their trade secrets, the tobacco companies argue that their property has lost all value. As support for their argument, the tobacco companies cite Monsanto which holds that the main value of trade secrets lies in the ability to exclude others. 467 U.S. at 1012. Once a trade secret is disclosed to another who is under no obligation to protect the information, its value is gone. Id. Therefore, according to the tobacco companies, the Disclosure Act works a per se taking.

case. Cf. Nixon v. United States, 978 F.2d 1269, 1284-85 (D.C. Cir. 1992) (arguing that there is no compelling distinction between real and personal property as to make the application of per se rules inappropriate in regard to personal property). Rather, I simply choose to address these arguments while also considering the Penn Central factors.

Furthermore, I note that applying the Penn Central regulatory takings framework is not practically different from utilizing per se rules. Functionally, these per se rules are simply shortcuts. See Tahoe-Sierra, 122 S. Ct. at 1478 n.17 (explaining that the same premise underlies both regulatory and physical takings cases but that the analysis is simply more complex for regulatory takings). An example of this principle is Loretto, a case which announced a per se rule in a physical takings context. See Tahoe-Sierra, 122 S. Ct. at 1478-79 (identifying the situation in Loretto as one which categorically requires compensation). There, the Court recited the Penn Central factors but then held that "when a physical intrusion reaches the extreme form of a permanent physical occupation, a taking has occurred." Loretto, 458 U.S. at 426. The character of the government action was the dispositive factor, and the Court bypassed the remaining Penn Central factors. Id. at 435. Similarly, in some regulatory takings cases, one factor is frequently dispositive. See Hodel, 481 U.S. at 717 (focusing on the character of the government

action); see also Monsanto, 467 U.S. at 1005 (finding the interference with reasonable investment-backed expectations to be dispositive). There is, of course, one stark difference: once a per se rule has been announced, future courts do not have the luxury to consider the public interest, reasonable investment-backed expectations, or economic impact. Were I to import a per se rule into this case, either in a physical or regulatory takings context, I would ignore those Penn Central factors. However, whether I apply a regulatory takings analysis or a per se rule should not impact the ultimate decision. If the Disclosure Act's provisions are so "extraordinary," Hodel, 481 U.S. at 716, as to make it properly subject to a per se rule, the considerations that led to adoption of that rule will also counsel me to find a taking under the Penn Central framework. Therefore, the concerns of Lucas will continue to inform my analysis.

As a final point before considering the Penn Central factors as they apply to this case, I would like to address the heavy charge leveled by the concurrence: that application of the Penn Central framework to this case ignores principles of stare decisis. See infra p. 51. I emphatically disagree with this characterization and am of the view that such a conclusion is only possible by the use of a self-serving definition of the term stare decisis.

As noted by the concurrence, the jurisprudence in this area is convoluted and subject to various interpretations. The fact that the concurrence and I understand Monsanto differently is not surprising. What is surprising is that the concurrence takes that understandable difference in opinion and translates it into an accusation that I am ignoring stare decisis. The heart of our disagreement lies with our conflicting interpretations of Monsanto, particularly as to the Court's discussion of the second scheme. See infra pp. 26-31, 35-43, 45-47. The concurrence finds that this discussion disposes of our current case and I simply do not agree, for reasons explained elsewhere. I do not think that Monsanto established a per se rule that once a trade secret holder establishes a reasonable investment-backed expectation the government may not require disclosure without triggering the protections of the Takings Clause. Since I interpret Monsanto to require courts to apply the Penn Central framework in cases like ours, I now proceed with that analysis.

i. Reasonable Investment-Backed Expectations

Despite the importance of reasonable investment-backed expectations under the Penn Central framework, the courts have struggled to adequately define this term. See generally R.S. Radford & J. David Breemer, Great Expectations: Will Palazzolo v. Rhode Island Clarify the Murky Doctrine of Investment-Backed Expectations in Regulatory Takings Law?, 99 N.Y.U. Envtl. L.J. 449,

449-50 (2001). Some very general contours are clear. Courts protect only reasonable expectations. Ideally, the relevant inquiry should recognize that not every investment deserves protection and that some investors inevitably will be disappointed. See Frank I. Michelman, Property, Utility, and Fairness: Comments on the Ethical Foundations of "Just Compensation" Law, 80 Harv. L. Rev. 1165, 1213 (1967). However, beyond the general landscape, there is a paucity of clear landmarks that can be used to navigate the terrain. Some recent decisions have added specific details, see, e.g., Palazzolo, 533 U.S. at 627 (holding that whether property is acquired before or after a regulation is enacted does not completely determine the owner's reasonable investment-backed expectations), but many areas are still uncharted. As I proceed into this quagmire, the first guidepost is Monsanto.

Monsanto answered a challenge to disclosures by the EPA of data which had been submitted under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA"). 7 U.S.C. §§ 136-136y. FIFRA was enacted in 1947, amended in 1972, and amended again in 1978, each time offering different protections to submitted data. Monsanto challenged disclosures of data which had been submitted under each of these schemes, and the Court looked at the protections provided by each scheme to determine whether applicants had a reasonable investment-backed expectation that their trade secrets would remain secret. Following the Supreme Court's lead,

I recount the provisions of each scheme and the Court's corresponding concerns.

In the period between 1947 and 1972, "FIFRA was primarily a licensing and labeling statute," Monsanto, 467 U.S. at 991, and it failed to specify the government's ability to use and disclose data submitted by pesticide manufacturers. Id. at 1008. Therefore, manufacturers like Monsanto had no guarantee that their data would be treated confidentially, nor did the government have specific authority to disclose such data. Id. The Court concluded that without a guarantee of confidentiality, Monsanto had no reasonable investment-backed expectation that its submitted data would remain secret. Id. Therefore, any disclosures of this data by the government did not constitute an unconstitutional taking of property.

The 1972 amendments transformed FIFRA from a labeling statute to a "comprehensive regulatory statute." Id. at 991. Additional requirements were imposed on pesticides submitted for registration, and the EPA, as the administrative agency in charge of such regulations, gained additional enforcement powers. Id. at 991-92. Congress also amended FIFRA to provide for certain public disclosures of data, but it explicitly prohibited the EPA from disclosing information which was deemed to be a trade secret. Id. at 992. Another addition was a "mandatory data-licensing scheme." Id. This allowed the EPA to use data submitted by one registrant

when considering subsequent applications as long as those later applicants agreed to compensate the original registrant. Id.

It was this second scheme that raised possible constitutional problems. Id. at 1010-14. The difference arose because there was an "explicit governmental guarantee [which] formed the basis of a reasonable investment-backed expectation" that submitted data, designated as trade secrets, would be kept confidential. Id. at 1011. A trade secret's value lies in the "right to exclude others." Id. If others are given the trade secret, the "holder of the trade secret has lost his property interest." Id. Therefore, if the government discloses the data that Monsanto submitted during this second period, a taking potentially occurs because the disclosure destroys the value of Monsanto's trade secrets. Id. at 1013-14. Whether such a taking is unconstitutional hinges on whether Monsanto received adequate compensation, a question not before the Court. Id.

The final amendments relevant to Monsanto occurred in 1978. They provided that any data submitted could be cited and considered by subsequent applications for fifteen years, so long as the original submitter is compensated. Id. at 994. Finally, any qualified person could request that all health, safety, and environmental data be disclosed, regardless of whether such

information had been designated a trade secret.⁹ Here, it was dispositive that Monsanto knew that the government might disclose any confidential data:

If, despite the data-consideration and data-disclosure provisions in the statute, Monsanto chose to submit the requisite data in order to receive a registration, it can hardly argue that its reasonable investment-backed expectations are disturbed when EPA acts to use or disclose the data in a manner that was authorized by law at the time of the submission.

Id. at 1006-07. This notice negated any reasonable investment-backed expectations and, consequently, Monsanto's argument that a taking had occurred.

Despite appellants' arguments to the contrary, neither the first nor the third regime presented in Monsanto is directly analogous to the Disclosure Act. One stark difference sets them both apart and undermines their usefulness in this case. Monsanto complained about current and future disclosures of already submitted data. Monsanto, 467 U.S. at 1004 ("Having determined that Monsanto has a property interest in the data it has submitted to EPA, we confront the difficult question whether a 'taking' will

⁹ The 1978 amendments did provide some exclusions, including whether disclosure "would reveal 'manufacturing or quality control processes' or certain details about deliberately added inert ingredients." Monsanto, 467 U.S. at 996 (quoting 7 U.S.C. § 136h(d)(1)(A)). However, even these prohibitions can be overridden if it is determined that "'disclosure is necessary to protect against an unreasonable risk of injury to health or environment.'" Id. (quoting 7 U.S.C. § 136h(d)(1)).

occur when EPA discloses those data. . . ." (emphasis added)). In answering that challenge, the Court measured Monsanto's reasonable investment-backed expectations at the time it submitted the data. Because there was no promise by the government under these two schemes to keep the data confidential, Monsanto had no basis on which to expect that its data would remain secret. In essence, Monsanto had "constructive notice" that its trade secrets might later be made public. Here, the tobacco companies challenge the ability of Massachusetts to compel future submissions of data which would be subject to disclosure. The tobacco companies have not voluntarily provided their ingredient lists. Therefore, their situation is fundamentally different from two of the scenarios that confronted Monsanto.¹⁰

The second scheme addressed by the Monsanto Court does shed some light on the current case, but it is not entirely dispositive. There, FIFRA provided Monsanto with an explicit guarantee of confidentiality. This guarantee established a reasonable investment-backed expectation that Monsanto's trade

¹⁰ There is one element of the third Monsanto scheme which does not suffer from the same timing problem. 467 U.S. at 1007-08 (addressing Monsanto's argument that the final statutory scheme created an unconstitutional condition). I will return to this when I discuss whether the Disclosure Act is constitutional because it offers the tobacco companies a "valuable government benefit" in exchange for the submission of the ingredient lists. Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 833 n.2 (1987). Here, I simply note that this holding in Monsanto did not address Monsanto's reasonable investment-backed expectations. Monsanto, 467 U.S. at 1008.

secrets would remain protected. When the Court decided that the government could not disclose submitted data which had been guaranteed confidentiality, the Court simply enforced the terms of the statute. Here, Massachusetts only generally protects trade secrets, establishing a right to recovery when a third party discloses or uses a trade secret without permission, Jet Spray Cooler, 385 N.E.2d at 1354, and the Disclosure Act only provides for publication of submitted data. It explicitly disclaims any long-term confidentiality.¹¹ This distinction is important because a trade secret is lost if its holder gives the trade secret to another without extracting a guarantee of confidentiality. Monsanto, 467 U.S. at 1002. Monsanto preserved its trade secrets because there was a promise of confidentiality. The tobacco companies will lose their trade secrets because there is no similar promise here. Therefore, a slightly different question is posed by the current case. In Monsanto, the question was whether the government could disclose trade secrets it had previously agreed to

¹¹ As the concurrence correctly notes, the tobacco companies are hardly in a position to force the Massachusetts legislature to guarantee confidentiality to submitted trade secrets. Furthermore, as this opinion addresses later, the tobacco companies are currently placed in the untenable position of having to choose between relinquishing their valuable trade secrets or pulling their products out of Massachusetts. This is an unconstitutional condition. However, the fact that Massachusetts is creating an unconstitutional condition has little, if anything, to do with whether the tobacco companies have a reasonable investment-backed expectation that their trade secrets will remain protected.

keep secret. Here, the question is whether Massachusetts can force the tobacco companies to cede their trade secrets.

To answer that question I must look at the tobacco companies' reasonable investment-backed expectations that they can maintain the integrity of their trade secrets. The fact that the Disclosure Act has been enacted is not dispositive because, as discussed above, Massachusetts cannot simply redefine property rights without regard to previously existing protections. See Webb's Fabulous Pharmacies, Inc., 449 U.S. at 164; cf. Palazzolo, 533 U.S. at 627 (holding that enactment of a regulation inhibiting development before a purchaser acquires his property does not alone negate the purchaser's reasonable investment-backed expectations because otherwise "[a] State would be allowed, in effect, to put an expiration date on the Takings Clause"). I must examine the tobacco companies' reasonable investment-backed expectations "in light of the whole of our legal tradition," Lucas, 505 U.S. at 1035 (Kennedy, J., concurring), not just in light of the provisions of the Disclosure Act.

To understand that legal tradition, I begin with a Supreme Court case from the early twentieth century which arguably provides constructive notice that ingredient lists are not inviolable. In Corn Products II, the Court considered whether it was a taking to require a manufacturer to disclose its ingredient list. In a tersely worded decision, the Court simply said:

And it is too plain for argument that a manufacturer or vendor has no constitutional right to sell goods without giving to the purchaser fair information of what it is that is being sold. The right of a manufacturer to maintain secrecy as to his compounds and processes must be held subject to the right of the state, in the exercise of its police power and in promotion of fair dealing, to require that the nature of the product be fairly set forth.

249 U.S. at 431-32 (emphasis added). While this language can be read to suggest that ingredient lists are subject to full disclosure, it refers only to "fair information." Such "fair information" could be something short of complete disclosure of all additives. For example, if Massachusetts found that the addition of one or more ingredients to tobacco products presented a health risk, disclosing when those specific ingredients are used might constitute "fair information." Cf. Minn. Stat. § 461.17 (requiring manufacturers to report the use of ammonia, arsenic, cadmium, formaldehyde, and lead in tobacco products and making such information public record).

This second interpretation gains credence from a closer reading of Corn Products II. The Court was addressing not a public health statute but a statute to prevent consumer deception. Corn Prods. II, 249 U.S. at 431 ("Evidently the purpose of the [labeling] requirement is to secure freedom from adulteration and misbranding. . . ."). To prevent deception, it might make sense to require a complete list of ingredients. Only requiring a partial list could, in fact, increase consumer deception. In contrast,

there is no evidence in the record that publication of only those ingredients which create health risks undermines the goal of promoting public health. In fact, such partial lists seem closest to the "fair information" referred to in the Corn Products II decision.¹²

More recent regulation, of both tobacco and other products, supports the idea that "fair information" is not always a complete ingredient list. While the federal government and other states worry about the health effects of tobacco additives, none of their regimes requires the publication of brand-specific ingredient

¹² I also note that the factual and procedural history of this case cautions me against a broad interpretation of its language. Corn Products II reached the Court on appeal from a decision of the Kansas Supreme Court. Corn Prods. Ref. Co. v. Eddy, 163 P. 615 (Kan. 1916) [hereinafter Corn Prods. I]. The Kansas court had held that its State Board of Health could enforce the state labeling laws against the plaintiff, Corn Products. The plaintiff was selling a syrup called "Mary Jane" which failed to comply with Kansas law in two relevant respects: the label failed to identify "Mary Jane" as a compound and to specify its place of manufacture. Id. at 615. The label did list the product's ingredients, in order of relative amount. Id. When the case reached the Supreme Court, the plaintiff raised its claim that the Kansas statute, which required ingredients to be listed in order of relative amount, constituted an unconstitutional taking. Corn Prods. II, 249 U.S. at 431. It was then that the Supreme Court held that a state may require accurate labeling of products. Id. However, this argument and, consequently, its result, is a little confusing. The formula for "Mary Jane" was not a secret. It was clearly published on the label. See Corn Prods. I, 163 P. at 615. It had also been registered with the Patent Office. See id. The dispute with Kansas centered not on the requirement that ingredients be listed, but on the need to add the word "compound" and the place of manufacture to the label. Therefore, the claim that a state could not require disclosure of a secret formula was not a well-developed controversy.

lists. They either do not require brand-specific disclosures, or they grant the tobacco companies protections against public disclosure of ingredient lists submitted to the states. Furthermore, regulations governing other products recognize the difference between requiring accurate labeling and protecting secret formulas. For example, the Food, Drug, and Cosmetic Act allows additives to be grouped as "spices, flavoring, and coloring" without specifically identifying the individual ingredients. 21 U.S.C. § 343(i)(2). This allows many manufacturers to maintain their secret formulas.

Given this complex background and the fact that Massachusetts has long protected trade secrets, see Jet Spray Cooler, 385 N.E.2d at 1354, I cannot hold that the tobacco companies have no reasonable investment-backed expectation that their ingredient lists will remain secret. Therefore, I proceed to the other elements of the Penn Central inquiry.

ii. Economic Impact

In contrast to reasonable investment-backed expectations, the law regarding economic impact is fairly straightforward. The inquiry is whether the regulation "impair[s] the value or use of [the] property" according to the owners' general use of their property. Pruneyard Shopping Ctr., 447 U.S. at 83. Not only is the use to which the property owner puts her property important, but the economic impact needs to be considered in the context of

other laws and regulatory schemes. See Connolly v. Pension Benefit Guar. Corp., 475 U.S. 211, 225-26 (1986) (evaluating economic impact of imposing withdrawal fees on employers who leave pension funds within context of entire ERISA scheme).

The evidence presented here is similarly straightforward. The appellees' have spent millions of dollars developing the formulas for different brands. The evidence shows that public disclosure of the appellees' ingredient lists, even in part, will make it much easier to reverse engineer those formulas. If competitors can obtain these formulas, they can replicate appellees' products, undermining the value of appellees' brands. Some of those brands, such as Marlboro, are worth billions of dollars. While it is impossible to predict the exact economic impact that the Disclosure Act will have, it is potentially tremendous.

iii. Character of the Government Action

In this last section, I delve into how the Disclosure Act regulates and what that regulation does to the tobacco companies' trade secrets. See Hodel, 481 U.S. at 716 (examining the effect of the escheat provisions of the Indian Land Consolidation Act of 1983). As mentioned above, the tobacco companies believe that the Disclosure Act regulations are so egregious that they rise to the level of a per se taking. They ground this claim on the fact that the Disclosure Act gives Massachusetts the right to publish the

ingredient lists. The Act, in essence, prevents the tobacco companies from excluding others from their trade secrets, destroying their essential attribute. It also, allegedly, destroys the entire value of the trade secrets. I now address those arguments in full. However, I will also balance the effects of the Disclosure Act against Massachusetts' interests. See Keystone Bituminous Coal Ass'n v. DeBenedictis, 480 U.S. 470, 488 (1987) (considering the state's asserted interests in "health, the environment, and the fiscal integrity of the area") [hereinafter Keystone]. Here, the asserted state interest is the promotion of public health.

I begin with the tobacco companies' argument that they will lose the right to exclude others from their trade secrets and, consequently, their trade secrets will lose all value. It appears paradigmatic that these assertions are true. In Monsanto, the Supreme Court recognized that, "[i]f an individual discloses his trade secret to others who are under no obligation to protect the confidentiality of the information, or otherwise publicly discloses the secret, his property right is extinguished." 467 U.S. at 1002. That is exactly what happens here. The Disclosure Act requires the tobacco companies to share their trade secrets with Massachusetts, which is under no obligation to keep the information secret.¹³ In

¹³ The dissent argues that there is indeed "an unambiguous promise of confidentiality" given to the tobacco companies. In support of this proposition, the dissent correctly notes that the tobacco

fact, the Disclosure Act spells out the terms under which Massachusetts will publish those trade secrets. It, thus, provides specific notice to the tobacco companies that Massachusetts need not respect their property rights. Therefore, if the tobacco companies comply with the requirements of the Disclosure Act, their property right will be extinguished. In the future, should a

companies are promised confidentiality until the requirements for disclosure are met. Mass. Regs. Code tit. 105 § 660.200(G)(2). As previously identified, those requirements are simply (1) that Massachusetts finds that disclosure "could reduce risks to public health" and (2) that the Massachusetts Attorney General finds that such disclosure would not constitute an unconstitutional taking. Mass. Gen. Laws § 307B. The enabling regulations also promise that the confidentiality of the ingredient lists will be maintained during any litigation challenging specific disclosures. Mass. Regs. Code tit. 105 § 660.200(G)(2). While the dissent correctly describes the law, this does not undermine my point. Essentially, Massachusetts only promises confidentiality until it finds that disclosure "could" benefit public health. As discussed in the text, it is this low burden that is problematic. Should the tobacco companies comply with the Disclosure Act and Massachusetts decide to publish some information from the submitted ingredient lists because such publication "could" benefit public health, the tobacco companies cannot complain that this standard is too low. That is exactly the situation that confronted Monsanto, and the Supreme Court held that Monsanto was bound by the terms of the statute in effect when its data had been submitted. Monsanto, 467 U.S. 1006-07. Nothing distinguishes that situation from the one that the dissent contemplates.

The dissent also finds that third parties will be unable to compel disclosure of the ingredient lists under the public records statute. Materials or data that are "specifically or by necessary implication exempted from disclosure by statute" are clearly exempted from the definition of a public record. Mass. Gen. Laws ch. 4, § 7, cl. 26(g). However, whether the Disclosure Act provides such a specific or necessary implication of exemption is a question for the Massachusetts courts, not this court. Until the lower courts decide this question in the affirmative, the tobacco companies risk publication of their ingredient lists by complying with the Disclosure Act.

competitor use published data, the tobacco companies will have no ability to enforce their rights. See Jet Spray Cooler, 385 N.E.2d at 1354 ("The essence of an action for the wrongful use of trade secrets is the breach of the duty not to disclose or to use without permission confidential information acquired from another."). Similarly, the value of the trade secrets will be lost because their value lies in the ability of the tobacco companies to exclude others. See Monsanto, 467 U.S. at 1012. The Disclosure Act essentially destroys the tobacco companies' trade secrets.

This fact may very well prove to be dispositive in this case. In Armstrong v. United States, 364 U.S. 40 (1960), the Supreme Court considered the implications of a government action which, as a secondary effect, destroyed a private party's lien. The Court held that this was a taking and "not a mere 'consequential incidence' of a valid regulatory measure." Id. at 48. The Court then continued: "Before the liens were destroyed, the lienholders admittedly had compensable property. Immediately afterwards, they had none. This was not because their property vanished into thin air. It was because the Government for its own advantage destroyed the value of the liens." Id. The Disclosure Act creates a similar situation. The tobacco companies have a

protected property interest which the Disclosure Act will completely destroy.¹⁴

On the other hand, in Andrus v. Allard, 444 U.S. 51 (1979), the Supreme Court made it clear that regulation can severely undermine the economic value of personal property and not rise to the level of a taking. Id. at 66. There, the federal government had banned sales of all items containing eagle parts. Id. at 56. The end result was that some people who had artifacts made of lawfully acquired eagle parts could not sell their products. Id. at 62-63. Consequently, the artifacts lost essentially all of their economic value. Id. at 66 (positing that some value could be extracted by displaying the artifacts for an admissions charge). While this was a "significant restriction," the Court held that this "destruction of one 'strand' of the

¹⁴ One might acknowledge that the Disclosure Act destroys the tobacco companies' trade secrets but argue that because those trade secrets are inexorably tied to the underlying formulas, their destruction does not constitute an unconstitutional taking. In one case, the Supreme Court suggested that certain property interests can be completely extinguished so long as they are attendant to other property rights. Keystone, 480 U.S. at 501 (upholding a law which entirely destroyed the support estate because it "has value only insofar as it protects or enhances the value of the estate with which it is associated."). That result simply is not applicable here. Keystone confronted an idiosyncratic regime which separated the support estate from the surface estate. Id. at 500. This odd scenario, alone, is probably sufficient to confine Keystone to its facts. Additionally, the Supreme Court has held that trade secrets are entitled to their own protections under the Takings Clause. Monsanto, 467 U.S. at 1001-04. Therefore, it is clear that the tobacco companies' trade secrets are not attendant rights which can be destroyed, at least, so long as the tobacco companies can continue to use their formulas.

bundle" of property rights did not constitute a taking. Id. Rather, the substantial state interest in preserving eagles justified the regulation. Id. at 58 (discussing policy rationale behind the regulation) and 66-68 (upholding the regulation despite the burden it places on lawful property owners).

The end result reached in Andrus, however, must be compared with the result in Hodel.¹⁵ In Hodel, the Supreme Court addressed whether the Indian Land Consolidation Act of 1983 created an unconstitutional taking when it destroyed the rights of descent and devise which had previously attached to undivided fractional interests in land. 481 U.S. at 706-10. Congress had enacted this legislation to attempt to revise an "administratively unworkable and economically wasteful" system of administering Indian lands. Id. at 707. To further that goal, the statute destroyed the rights of descent and devise for small fractional interests of land and, instead, had those interests escheat to the tribe. Id. at 709. This, in fact, was such an "extraordinary" government action as to make it a taking, despite the indeterminacy of the other Penn

¹⁵ Whether these two cases can actually be reconciled is unclear. When Hodel was decided, the Court split on the implications that its decision had on the precedential value of Andrus. Compare Hodel, 481 U.S. at 719 (Scalia, J., concurring) (suggesting that Hodel limits Andrus to its facts) with id. at 718 (Brennan, J., concurring) (suggesting that Hodel is a unique case which should be limited to its facts). Both these concurrences imply that Hodel and Andrus cannot be fully reconciled, that one must be limited to its facts. Fortunately, that case does not force us to address the conflict that lies at the heart of this controversy.

Central factors and the "serious public problem" which the regulation addressed. Id. at 714-18.

The question then arises as to which line of cases governs here. The simple loss of economic value, alone, is probably not enough. See Lucas, 505 U.S. at 1027-28 (noting that regulations can constitutionally render personal property "economically worthless"). "[G]overnment regulation--by definition--involves the adjustment of rights for the public good. Often this adjustment curtails some potential for the use or economic exploitation of private property. To require compensation in all such circumstances would effectively compel the government to regulate by purchase." Andrus, 444 U.S. at 65. There is a point, however, at which compensation is due, see Penn. Coal Co., 260 U.S. at 415, and this is not simply a case where the tobacco companies' property has been rendered worthless. Their property right has been "extinguished." Monsanto, 467 U.S. at 1002. Consequently, it appears unconstitutional.

Appellants urge us, however, to consider the asserted state interest, promoting public health, as a counterbalance.¹⁶ I

¹⁶ The concurrence argues that the state's interest in disclosure should not play a factor in the decision because Monsanto simply looked to the reasonable investment-backed expectations despite public health concerns. See infra pp. 54-55. However, Monsanto presented a different problem, as discussed above. In enacting the second scheme, Congress made an up-front decision to protect the integrity of submitted trade secrets and promised confidentiality. The government could not later decide that public health concerns overrode that explicit government promise. Here, there is no

recognize that appellants have asserted a significant, perhaps compelling, state interest: a right for Massachusetts to protect and promote the health of its citizens. If I was convinced that this regulation was tailored to promote health and was the best strategy to do so, I might reconsider our analysis. Numerous cases show that a crucial part of the regulatory takings equation is the government interest. See, e.g., Keystone, 480 U.S. at 488 ("[T]he nature of the State's interest is a critical factor in determining whether a taking has occurred."). However, the cases also show that the means should bear some reasonable relationship to the ends. See id. at 487 n.16 (noting that Pennsylvania Coal Co. rejected the legislature's proffered goal in enacting the regulation when it found an unconstitutional taking).

I simply am not convinced that the Disclosure Act, particularly the provisions about which the tobacco companies complain, really helps to promote public health. The Disclosure Act allows for full disclosure of the ingredient lists when doing so "could" further public health. This places an extremely low burden on Massachusetts. Frankly, for a state to be able to completely destroy valuable trade secrets, it should be required to show more than a possible beneficial effect. Cf. Keystone, 480 U.S. at 485-93 (explaining that courts should balance the public

explicit government promise of confidentiality, and the Supreme Court has factored the public interest into the Penn Central framework.

and private interests when evaluating regulatory takings claims). The tremendous individual loss is simply not justified by such a speculative public gain. Furthermore, it is not at all clear that protecting the overall integrity of the tobacco companies' ingredient lists will interfere with Massachusetts' goal of promoting public health. See Hodel, 481 U.S. at 717-18 ("The difference in this case is the fact that both descent and devise are completely abolished; indeed they are abolished even in circumstances when the governmental purpose sought to be advanced, consolidation of ownership of Indian lands, does not conflict with the further descent of the property."). I note that the tobacco companies comply, without complaint, with regimes which require them to make confidential disclosure of brand-specific, ingredient information, see Tex. Health & Safety Code Ann. §§ 161.351-55, or which require public disclosures when specific ingredients are used, see Minn. Stat. § 461.17. There is no evidence that suggests that regimes similar to those adopted by Texas and Minnesota, or some combination thereof, would not achieve the goals which appellants claim underlie the requirements of the Disclosure Act.¹⁷

¹⁷ In fact, the regime adopted by Massachusetts may actually be less effective at promoting public health. If entire ingredient lists are published, those ingredients which might pose a danger to health may very well be buried in the middle or end of lengthy lists. It appears from a lay perspective that making targeted disclosures of certain ingredients and ingredient groupings might be a more effective public health strategy.

Because this is a crucial point, I wish to further clarify what I have just concluded above. I am not requiring Massachusetts to adopt the narrowest regulation possible to address its laudable goals. Rather, the tobacco companies complain about a specific element of the Disclosure Act, namely, that Massachusetts can publish their entire ingredient lists if doing so "could" further public health. A prior holding, which is not currently before us, decided that under this standard, Massachusetts will publish the tobacco companies' ingredient lists.¹⁸ Philip Morris III, 113 F. Supp. 2d 129. I simply find that this actual publication, or right to publish, under the minimal standard set forth, has not been shown to further the stated goal of promoting public health in such a way as to counterbalance the tremendous private loss involved. Therefore, it is clear that the character of the government action weighs heavily against sustaining the Disclosure Act.

iv. Conclusion -- Regulatory takings analysis

As I conclude my analysis of the Penn Central factors, I first note that there is no formula as to how to weigh the importance of the various factors. As has been clear from the

¹⁸ Under Monsanto, if the tobacco companies were to submit their trade secret information without any guarantee of confidentiality, they would lose all right to complain later about disclosure. 467 U.S. at 1006-07. Therefore, it is not actually dispositive that Massachusetts will disclose these lists. It is sufficient that the tobacco companies are on constructive notice that if they comply with the Disclosure Act, their trade secrets may not remain secret.

preceding discussion, different factors can be dispositive. See, e.g., Hodel, 481 U.S. at 716 (resting on the character of the government regulation which the Court found to be "extraordinary"); Monsanto, 467 U.S. at 1005 (finding the lack of reasonable investment-backed expectations to be dispositive).

Here, the tobacco companies have at least some reasonable investment-backed expectation that their trade secrets will remain secret and the economic impact of revelation is likely to be great. These factors, alone, may not be sufficient to raise this case to the level of an unconstitutional taking. However, the character of the government action determines the case. The Disclosure Act causes the tobacco companies to lose their trade secrets, entirely, and appellants advance no convincing public policy rationale to justify the taking itself. Instead, they point to a general, laudable goal which cannot justify the specific action of which the tobacco companies complain. Therefore, I find that the Disclosure Act violates the Takings Clause by taking appellees' property without just compensation.

This, unfortunately, does not completely end the inquiry. I must turn briefly to the doctrine of unconstitutional conditions.

C. Unconstitutional Conditions

The Disclosure Act is unlike some other challenged government actions because the tobacco companies do not need to cede their ingredient lists to Massachusetts. They can opt out

entirely, simply by not selling their products in Massachusetts.¹⁹ Therefore, their claim is really that Massachusetts has placed an unconstitutional condition on their right to sell their products in Massachusetts. If the Disclosure Act simply required the tobacco companies to submit their ingredient lists for possible publication, it would be unconstitutional. The question then is whether Massachusetts can constitutionally condition the right to sell tobacco products in Massachusetts on submission to this scheme.

The doctrine of unconstitutional conditions is fairly well-developed. "[T]he government may not require a person to give up a constitutional right--here the right to receive just compensation when property is taken for public use--in exchange for discretionary benefit conferred by the government where the benefit sought has little or no relationship to the property." Dolan v. City of Tigard, 512 U.S. 374, 385 (1994). Beyond these general contours, different inquiries have developed which apply to

¹⁹ Apparently when faced with disclosure regulations previously, some tobacco companies have simply withdrawn from those markets or reformulated the brands sold within those jurisdictions so as to avoid disclosures of certain ingredients. See Robert K. Hur, Takings, Trade Secrets, and Tobacco: Mountain or Molehill?, 53 Stan. L. Rev. 447, 488 (2000) (discussing the reaction of various tobacco companies to regulations imposed by Canada).

different types of property. In the case of intellectual property, Monsanto provides the relevant standard.²⁰

In the final element of Monsanto, the Court addressed whether the government could require pesticide manufacturers to submit trade secrets which could then be disclosed to other parties. Monsanto claimed that these data disclosure provisions created an unconstitutional condition. Monsanto, 467 U.S. at 1007. In respect to this claim, the Court said "as long as Monsanto is aware of the conditions under which the data are submitted, and the conditions are rationally related to a legitimate Government interest, a voluntary submission of data by an applicant in exchange for the economic advantages of a registration can hardly be called a taking." Id. This holding depended on the fact that Monsanto submitted its data in exchange for a valuable government benefit: a registration. See Nollan v. Cal. Coastal Comm'n, 483 U.S. 825, 833 n.2 (1987) ("[W]e found merely that the Takings Clause was not violated by giving effect to the Government's announcement that application for 'the right to [the] valuable

²⁰ The tobacco companies argue that there must be a "rough proportionality" between means and ends, a standard which has previously been used in evaluating unconstitutional conditions claims in the Takings Clause sphere. Dolan, 512 U.S. at 391. However, the Supreme Court has only applied this standard in cases where the state requires land to be dedicated to public use in exchange for permits to develop other portions of the property. City of Monterey v. Del Monte Dunes at Monterey, Ltd., 526 U.S. 687, 702 (1999). Therefore, I elect to follow the path laid out in Monsanto, which is, factually, fairly analogous to the current case.

Government benefit,' of obtaining registration of an insecticide would confer upon the Government a license to use and disclose the trade secrets contained in the application." (citations omitted)).²¹ Therefore, as part of a regulatory scheme which confers some government benefit upon a manufacturer, Monsanto establishes that the government may require that manufacturer to relinquish its rights to a trade secret.

Appellants argue that this holding governs here. I disagree. They claim that Massachusetts has a "legitimate Government interest" in protecting the health and safety of its citizens. I agree that this is indeed a legitimate state interest. My disagreement lies, rather, with the other side of the equation. The state must offer a valuable government benefit. Id. The right offered here is the right to sell tobacco products in Massachusetts. In Nollan, the Supreme Court considered what constitutes such a benefit with regard to land. The Court held that the right to build upon one's land is not such a benefit that

²¹ When the panel addressed this question, the panel majority ignored the Court's directive in Nollan. The majority justified their approach by noting that Nollan quotes a portion of the Monsanto opinion, which is actually a quotation from appellee Monsanto's brief. See Nollan, 483 U.S. at 833 n.2; see also Monsanto, 467 U.S. at 1007. This is an insufficient ground on which to ignore the Supreme Court's later clarification of the Monsanto holding. Just because the Supreme Court decides to adopt a party's terminology does not mean that the Court's reasoning is non-binding on this Court. We must still follow the lead of the Supreme Court whether the Justices blaze their own path or adopt a well-reasoned argument presented to them.

would allow a state to require a landowner to grant a public easement across his property. Id. at 833 n.2. In contrast, in Monsanto, the government granted a license, created a de jure data-licensing scheme, and established a period of exclusive use for new ingredients in exchange for the right to disclose some trade secrets. 467 U.S. at 994. Applying these two precedents to our case, I conclude that allowing a manufacturer to simply sell its legal product is more similar to building on one's land than to the complex regulatory scheme in Monsanto. Therefore, Massachusetts cannot condition the right to sell tobacco on the forfeiture of any constitutional protections the appellees have to their trade secrets. As a result, the Disclosure Act is invalid because it creates an unconstitutional taking of the tobacco companies' products.

V.

Due Process Analysis

Because I find that the Disclosure Act is invalid under the Takings Clause, I will not address the question of whether it also violates the Due Process Clause.

VI.

Conclusion

For the reasons discussed above, I find that the Disclosure Act violates the Takings Clause. Therefore, I affirm the district court's judgment.²²

Affirmed.

"Concurrence follows"

²² I note that normally injunctive relief is not available under the Takings Clause. "Equitable relief is not available to enjoin an alleged taking of private property for public use, duly authorized by law, when a suit for compensation can be brought against the sovereign subsequent to the taking." Monsanto, 467 U.S. at 1016. However, appellants failed to object to the appropriateness of injunctive relief before this Court. Therefore, they have waived this argument, see García-Ayala v. Lederle Parenterals, Inc., 212 F.3d 638, 645 (1st Cir. 2000) (holding that failure to brief an argument constitutes waiver), and the injunction stands.

SELYA, Circuit Judge (Concurring in the judgment). I agree with the ultimate conclusion reached by Judge Torruella in the lead opinion: the Disclosure Act (section 307B) works a regulatory taking of the tobacco companies' trade secrets and, in the bargain, places an unconstitutional condition on their right to conduct business in the Commonwealth of Massachusetts. I write separately, however, because of my doubts about the analysis that the lead opinion uses to reach that result.

I.

Judge Torruella and I start on common ground: both of us acknowledge the primacy of the Supreme Court's treatment of trade secret takings in Ruckelshaus v. Monsanto Co., 467 U.S. 986 (1984). At that point, we part company. The lead opinion uses Monsanto primarily as a stepping stone for applying the regulatory takings analysis derived in Penn Central Transportation Co. v. New York City, 438 U.S. 104, 124 (1978). With respect, I think that this approach unnecessarily complicates the matter.

Having articulated my complete position on the relevance of Monsanto to the resolution of this case in Philip Morris, Inc. v. Harshbarger, 159 F.3d 670 (1st Cir. 1998) (Philip Morris II), no useful purpose would be served by rehearsing that position here. I do need to point out, however, that after discussing trade secret protection in Massachusetts and concluding (persuasively, in my view) not only that Massachusetts protects trade secrets but also

that the Disclosure Act implicates the tobacco companies' property interests in their trade secrets, the lead opinion misses the turn that the Monsanto Court took to shorten traditional regulatory takings analysis in the trade secret context. The Monsanto Court specifically found that investment-backed expectations ancillary to safeguarded trade secrets so "overwhelm[ed]" the other customarily considered factors as to "dispose[] of the taking question regarding those data." 467 U.S. at 1005. The Court then concluded, without addressing either the character of the governmental action or its economic impact, that the government's use or disclosure of data in which a trade secret holder had a reasonable investment-backed expectation of continued confidentiality constituted a taking that would offend the Constitution absent adequate compensation. Id. at 1013-14.

In light of this express guidance, I am at a loss as to why the lead opinion does not simply stop after concluding that "the tobacco companies have at least some reasonable investment-backed expectation that their trade secrets will remain secret." Lead Op. at 47. Instead, that opinion proceeds to undertake a full Penn Central analysis, makes a series of unnecessary sub-holdings, and concludes (erroneously, in my view) that the tobacco companies' reasonable investment-backed expectations, even when coupled with the likelihood of great economic impact, "may not be sufficient to raise this case to the level of an unconstitutional taking." Id.

Although the lead opinion then reaches the right result by finding the character of the governmental action to be determinative, id. at 47, I cannot reconcile this reasoning with Monsanto (which teaches that as long as a trade secret holder has a reasonable investment-backed expectation that its trade secrets will remain secret, the sovereign's use or divulgement of that information constitutes a taking for which the Constitution requires just compensation).²³

I might add that the lead opinion seems to assume that when Penn Central applies, stare decisis does not. Id. at 20 n.5. I disagree. In general -- the exceptions are inapposite here -- that doctrine obliges us to follow the most current Supreme Court precedent. The lead opinion's application of Penn Central ignores the manner in which the Monsanto Court treated those factors in a materially indistinguishable situation. Stare decisis does not allow such hopscotching.

²³ Contrary to the lead opinion's assertion, Lead Op. at 20 n.5, this reading of Monsanto does not call into question the constitutionality of regulations such as 15 U.S.C. § 2613(a)(3). According to the Monsanto formulation, an entity subject to such a regulatory scheme would not have a reasonable investment-backed expectation that its trade secrets would remain secret if it submitted the information under circumstances meeting the statutory criteria for government divulgence. Monsanto, 467 U.S. at 1006. In such instances, the statute provides fair warning, and the trade secret holder can assess for itself the likelihood that the government will reveal submitted information. The tobacco companies, however, are not subject to a scheme of this type, nor does the Commonwealth argue that it presently publishes such statutory or regulatory notice.

To be sure, the lead opinion purports to distinguish Monsanto on the ground that the Disclosure Act offers no promise of long-term confidentiality whereas FIFRA -- the federal statutory scheme at issue in Monsanto -- contained such a guarantee. The lead opinion then concludes that FIFRA's explicit guarantee "established a reasonable investment-backed expectation that Monsanto's trade secrets would remain protected." Lead Op. at 31-32. This reads Monsanto out of context. Although the "explicit governmental guarantee formed the basis of a reasonable investment-backed expectation" anent "trade secrets [already] submitted under the statutory regime in force," Monsanto, 467 U.S. at 1011, state property law established those expectations with respect to trade secrets generally, see id. at 1001. Thus, "to the extent that Monsanto ha[d] an interest in its health, safety, and environmental data cognizable as a trade-secret property right under Missouri law, that property right [wa]s protected by the Taking Clause of the Fifth Amendment." Id. at 1003-04 (emphasis supplied). The promise in Monsanto was dispositive because it preserved the trade secret status, protected under state law, of data Monsanto had routinely submitted to the government throughout the relevant period. See id. at 1010-11. In contrast, the tobacco companies have not submitted their protected trade secrets to the Commonwealth. Were they to do so without extracting a guarantee of

confidentiality,²⁴ they would have no trade secrets (and, thus, no takings claim).

Viewed from this perspective, it is plain that Monsanto's trade secrets were its to lose, regardless of how the FIFRA was written. This is why the Court found no taking with respect to the periods during which "Monsanto [wa]s aware of the conditions under which the data [we]re submitted," yet submitted the data anyway. Id. at 1007. The question in Monsanto, therefore, was not simply "whether the government could disclose trade secrets it had previously agreed to keep secret." Lead Op. at 32-33. More aptly phrased, the question was whether the data Monsanto turned over to the government were, in fact, still trade secrets in which Monsanto had a property interest protected by the Takings Clause. See Monsanto, 467 U.S. at 1000. The Court answered this query affirmatively with respect to the data submitted during the 1972-78 regime.²⁵ See id. at 1013-14.

²⁴ As a practical matter, the tobacco companies cannot extract a promise of confidentiality from the Massachusetts legislature. They can only challenge the constitutionality of the laws passed by that august body.

²⁵ Consistent with this holding, Monsanto was not entitled to compensation for the pre-1972 period. The data revealed during that time frame did not fit the definition of a trade secret under state law because "the owner of the secret [did not] protect[] his interest from disclosure to others." Monsanto, 467 U.S. at 1002. As to the post-1978 period, the government's use of submitted data "in a manner that was authorized by law at the time of the submission" was not unconstitutional because it was justly compensated; Monsanto was fully aware of the conditions attendant to submitting the data and nonetheless did so voluntarily "in

Reading this record in light of Monsanto, I conclude, without serious question, that the tobacco companies have a reasonable investment-backed expectation that their trade secrets will remain secret before submission to the Commonwealth. After all, a secret remains a secret when not divulged, and there is no law that forces the tobacco companies to reveal their trade secrets to the Commonwealth if they decide to withdraw from the Massachusetts market. In the end, the tobacco companies are left with a Hobson's choice: either comply with the Disclosure Act and forfeit your valuable trade secrets or withdraw from the lucrative Massachusetts market. This constitutes an unconstitutional condition on the tobacco companies' right to sell their products in the Commonwealth, see Philip Morris II, 159 F.3d at 678-79, and they challenge the Disclosure Act under that theory. The tobacco companies apparently understand that they will no longer have a reasonable investment-backed expectation of continued confidentiality once they knuckle under and submit to the statutory regime. For that reason, they seek a preliminary injunction under the theory that enforcement of the statute will constitute a taking.

exchange for the economic advantages of a registration." Id. at 1007. Thus, it was Monsanto's own actions, silhouetted against the backdrop of state property law, that determined whether it maintained a reasonable investment-backed expectation of continued trade secret confidentiality.

It is possible, of course, that the lead opinion is asking whether the owner of any trade secret that raises public health and safety concerns has a reasonable investment-backed expectation of continued secrecy in the absence of regulatory or statutory notice. If so, the answer is "yes" -- according to no less an authority than Monsanto. Unlike the lead opinion, Lead Op. at 43-46, the Monsanto Court did not weigh the character of the government action to determine if it was tailored to achieve a laudable goal. Instead, the Court, even after acknowledging the "mounting public concern about the safety" of the products at issue, 467 U.S. at 991, found that government revelation of a trade secret in which the owner had a reasonable investment-backed expectation of continued confidentiality would be a taking (absent just compensation), id. at 1013-14. In the last analysis, Massachusetts is free to pursue its praiseworthy goals in any lawful manner -- but if it chooses to enforce the Disclosure Act in its present form, it will have to compensate the tobacco companies for expropriating their trade secrets. See id.

II.

I have another doubt about the lead opinion's approach. That opinion gives short shrift to the possibility that the Disclosure Act works a per se taking. See Lead Op. at 23-26. But per se takings analysis warrants very serious consideration in regard to the expropriation of trade secrets.

I need not wax longiloquent here, preferring instead, in the interest of brevity, to reiterate what I said in my dissent to the original panel opinion (now withdrawn). See Philip Morris, Inc. v. Reilly, Nos. 00-2425, 00-2449, slip op. at 50-56 (1st Cir. 2001) (Selya, J., dissenting), available at 2001 WL 1215365. Simply put, I see no principled reason to refrain from extending per se takings analysis to alleged takings of trade secrets. Indeed, the Supreme Court hinted at this result when it observed that the term "property" in the Takings Clause is meant in its "more accurate sense to denote the group of rights inhering in the citizen's relation to the physical thing" as opposed to its "vulgar and untechnical sense of the physical thing" itself. Monsanto, 467 U.S. at 1003 (quoting United States v. Gen. Motors Corp., 323 U.S. 373, 377-78 (1945)).

The Court further elucidated the conceptual nature of rights in physical property in Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency, 122 S. Ct. 1465 (2002). There, the Court reasoned that an "interest in real property is defined by the metes and bounds that describe its geographic dimensions and the term of years that describes the temporal aspect of the owner's interest." Id. at 1484. Realistically, however, such "property" exists principally in the minds of legal theorists; to the archetypical landowner, such concepts are meaningless unless and until the integrity of her rights are challenged. In my view,

this illustrates that property rights, in general, consist largely of legal fictions, and exist only to the extent that they are recognized and enforceable in court -- and that verity holds true whether the subject matter they encompass is corporeal or conceptual.

This point is further supported by comparing the valuation of real and intellectual property. The basis of value for both is the owner's right to exclude (relative to others' demand for access). For example, it is obvious that, other things being equal, ten acres of undeveloped land in rural Maine is not as valuable as ten acres of undeveloped land in midtown Manhattan. If the physical thing itself were the basis of value, these tracts of equal size and topographical characteristics should be worth the same. The value differential results from the fact that people are willing to pay a higher price for access to Manhattan. Cf. The Executive's Book of Quotations 168 (Oxford Univ. Press 1994) (citing the "[l]ong-standing real estate principle" of "[l]ocation, location, location"). So too trade secrets: if I have a secret formula for, say, prune juice, people presumably will not be willing to pay as high a price for the secret as they would for a secret recipe for making Marlboro cigarettes.

In short, the value of trade secrets, like the value of land, is inextricably tied to both the demand of others for access and the legal enforceability of the owner's right to exclude. In

either case, if the right to exclude is diminished, the value decreases. And in either case, if the sovereign effectively deprives the owner of the right to exclude, the value is destroyed -- and the Constitution requires just compensation. Limiting per se takings analysis to cases involving real property is a crude boundary with no compelling basis in the law. We should not be hesitant to take the next logical step when justice demands it.²⁶

III.

I need go no further. Even the most laconic observer of the Supreme Court's Takings Clause jurisprudence knows that the "question of what constitutes a 'taking' is one with which th[e] Court has wrestled on many occasions." Monsanto, 467 U.S. at 1004. Against that chiaroscuro backdrop, it should be no surprise if jurists who agree on a conclusion disagree on the best route to get there. Although our reasoning differs, I welcome Judge Torruella's arrival at our common destination and gladly concur in the judgment.

"Dissent follows"

²⁶ The lead opinion reads Monsanto as confining its analysis to regulatory takings rather than extending per se rules to trade secrets. Lead Op. at 20-23. But actions speak louder than words. Once the Monsanto Court found that the trade secret holder possessed a reasonable investment-backed expectation in its trade secrets, the Court determined that such a taking, if not justly compensated, would be unconstitutional. Monsanto, 467 U.S. at 1013-14. This treatment mirrors a per se takings analysis.

LIPEZ, Circuit Judge (Dissenting). This case requires us to address the difficult doctrine of regulatory takings. I agree with much of the reasoning in Judge Torruella's opinion. However, I believe that reasoning compels the conclusion that the Disclosure Act is not unconstitutional on its face. Accordingly, I respectfully dissent.

I. TAKINGS CLAUSE

The tobacco companies mount only a facial challenge to the Disclosure Act. See Philip Morris, Inc. v. Reilly, 113 F. Supp. 2d 129, 132 (D. Mass. 2000) [hereinafter Philip Morris III]. Thus, they must show that the "mere enactment of the [Disclosure Act] constituted a taking." Tahoe-Sierra Pres. Council, Inc. v. Tahoe Reg'l Planning Agency, 535 U.S. ___, 122 S. Ct. 1465, 1476 (2002). The test is a stringent one, and the tobacco companies "'face an uphill battle.'" Id. at 1477 (quoting Keystone Bituminous Coal Assn. v. DeBenedictis, 480 U.S. 470, 495 (1987)). "A facial challenge to a legislative Act is . . . the most difficult challenge to mount successfully, since the challenger must establish that no set of circumstances exists under which the Act would be valid." Pharm. Research & Mfrs. of Am. v. Concannon, 249 F.3d 66, 77 (1st Cir. 2001) (internal quotation marks omitted); see also Yee v. City of Escondido, 503 U.S. 519, 534 (1992) (explaining that a facial takings challenge must show that the law in question "does not substantially advance a legitimate state

interest no matter how it is applied" (internal quotation marks omitted)).

The tobacco companies have not met that burden here. As Judge Torruella's opinion indicates, the constitutionality of any given disclosure under the Act depends on how much -- and what sort of -- ingredient information is made public. The question of what information will be publicized cannot be answered by reference to the terms of the Act and its implementing regulations, which indicate only that Massachusetts may disclose some of the information it receives. Thus, there is nothing unconstitutional about the Act itself. What matters is how it is applied in each individual case.

A.

Judge Torruella reasons that publication of the tobacco companies' "entire ingredient lists" constitutes a taking under the ad hoc balancing test mandated by Penn Central Transportation Co. v. City of New York, 438 U.S. 104 (1978). Although I do not believe we need to decide that question here, I agree that disclosure of the tobacco companies' entire ingredient lists almost certainly would "go[] too far," Penn. Coal Co. v. Mahon, 260 U.S. 393, 415 (1922), and therefore would rise to the level of a taking. Such a disclosure would come at an enormous cost, as it would "completely destroy" the secrecy of the companies' brand-specific formulas. On the other side of the equation, "it is not at all

clear that protecting the overall integrity of the tobacco companies' ingredient lists" -- by publicizing only certain ingredients, for example -- would "interfere with Massachusetts' goal of promoting public health." Accordingly, it seems reasonable to conclude, as Judge Torruella does, that disclosure of the tobacco companies' entire ingredient lists would constitute a taking for which compensation is due.

Judge Torruella recognizes, however, that a more limited disclosure likely would not suffer from the same constitutional infirmities. Thus, he acknowledges that the tobacco companies "comply, without complaint, with regimes which require them to make confidential disclosures of brand-specific, ingredient information, see Tex. Health & Safety Code Ann. §§ 161.351-55, or which require public disclosures when specific ingredients are used, see Minn. Stat. § 461.17." Judge Torruella observes that ingredient-specific disclosure, such as that required under Minnesota law, not only adequately serves the state's interest in protecting public health, but actually does so more effectively than the across-the-board disclosure permitted under the Disclosure Act.

Implicit in Judge Torruella's opinion, therefore, is the view that the outcome of the Penn Central analysis depends on whether Massachusetts publicizes the tobacco companies' entire ingredient lists, or whether it engages in a more limited disclosure. I agree. If Massachusetts were to disclose only

certain harmful ingredients, the economic burden on the companies would be significantly reduced. Although the fact that brand X contains ingredient Y may be a secret, the tobacco companies do not allege that the disclosure of such limited information would permit their competitors to discover and recreate brand-specific formulas. They reserve that charge for a disclosure of their entire ingredient lists, organized by relative amount on a brand-by-brand basis.

Moreover, a more limited disclosure undeniably would serve the state's goal of protecting public health. Under current law, the federal Department of Health and Human Services "can study and report to Congress on the health effects of tobacco additives, including information on specific ingredients which may pose a health risk to consumers." However, neither the federal government nor -- as of yet -- most states, can inform consumers about the presence of harmful ingredients in specific brands. As Judge Torruella recognizes, Massachusetts has a "significant" interest in promoting the health of its citizens, and its desire to help consumers make informed choices about tobacco products is "laudable." If Massachusetts were to pursue those ends by disclosing brand-specific information about certain harmful ingredients, I believe the force of the state's interests would outweigh the costs to the tobacco companies in the balance of

factors. See Keystone Bituminous Coal Ass'n, 480 U.S. at 488. Nothing in Judge Torruella's opinion suggests otherwise.

B.

Thus, under Judge Torruella's own reasoning, the Disclosure Act will effect an unconstitutional taking only if Massachusetts discloses the tobacco companies' entire ingredient lists. It follows that, in order to hold that the Disclosure Act is unconstitutional on its face, we would have to conclude that it mandates such broad disclosure in every case, or at least a "large fraction" of them. Planned Parenthood v. Casey, 505 U.S. 833, 895 (1992). However, the Act does not require disclosure of the entire ingredient lists. It says only that Massachusetts "shall" make public certain "information" contained in those lists if the State Department of Health determines that publicizing "such information" could reduce risks to public health. Mass. Gen. Laws ch. 94, § 307B (2002).

Notwithstanding the express terms of the Act, Judge Torruella proceeds on the assumption that Massachusetts necessarily will disclose the tobacco companies' entire ingredient lists. He justifies that assumption by reference to the district court's opinion, stating that "[a] prior holding, which is not currently before us, decided that under [the Disclosure Act], Massachusetts will publish the tobacco companies' ingredient lists." The district court decided no such thing. To the contrary, the court

explicitly acknowledged Massachusetts's argument that "the DPH may determine that the public health will be served by disclosure of only some of the ingredients on a list, not a whole list."²⁷ Philip Morris III, 113 F. Supp. 2d at 139 n.27. It held only that Massachusetts was bound to disclose some of the information in the tobacco companies' ingredient lists.

Perhaps recognizing the limited nature of the district court's holding, Judge Torruella emphasizes that the Act "allows for" disclosure of the full ingredient lists. But the mere possibility of such broad disclosure is not enough to render the Act facially invalid. See Agins v. Tiburon, 447 U.S. 255, 259-60 (1980) (rejecting, in the context of a facial challenge, the argument that the zoning ordinance at issue could be applied to prohibit all development, where the terms of the ordinance

²⁷ Although the district court did not question the accuracy of that argument, it rejected Massachusetts's claim that the possibility of partial disclosure rendered the tobacco companies' takings claims unripe. See Philip Morris III, 113 F. Supp. 2d at 139 n.27. I agree that those claims are ripe for review. Indeed, the Supreme Court has explained that a facial challenge such as this one typically is ripe "the moment the challenged regulation or ordinance is passed." Suitum v. Tahoe Reg'l Planning Agency, 520 U.S. 725, 736 n.10 (1997). Accordingly, I agree that the tobacco companies' facial challenge is properly before us. As I explain in the text, however, I think that challenge fails on the merits. See Yee, 503 U.S. at 534 (concluding that facial, but not as-applied, takings challenge was ripe, and rejecting it on the merits); Hodel v. Va. Surface Mining & Reclamation Ass'n, Inc., 452 U.S. 264, 295-97 (1981) (same); Agins v. City of Tiburon, 447 U.S. 225, 260 (1980) (same); see also Kines v. Day, 754 F.2d 28, 29-31 (1st Cir. 1985) (same, with respect to facial and as-applied challenges under the First Amendment (citing similar cases)).

permitted appellants to construct up to five residences on their property); see also United States v. Salerno, 481 U.S. 739, 745 (1987) ("The fact that [a legislative act] might operate unconstitutionally under some conceivable set of circumstances is insufficient to render it wholly invalid"). Rather, the fact that the Disclosure Act may result in a taking in certain circumstances -- if Massachusetts decides to publish the tobacco companies' entire ingredient lists, for example -- means only that the companies might well succeed in as-applied challenges to the Act. See Tahoe-Sierra, 122 S. Ct. at 1485 ("[I]f petitioners had challenged the application of the moratoria to their individual parcels, instead of making a facial challenge, some of them might have prevailed under a Penn Central analysis."); see also McGuire v. Reilly, 260 F.3d 36, 47 (1st Cir. 1999) ("If, as the plaintiffs predict, experience shows that clinic staffers in fact are utilizing the exemption as a means either of proselytizing or of engaging in preferential pro-choice advocacy, the plaintiffs remain free to challenge the Act, as applied, in a concrete factual setting.").

C.

Judge Torruella also suggests that the fact that Massachusetts has the right to publish the entire ingredient lists renders the Act facially invalid because the mere possibility of disclosure is enough to put the companies on "constructive notice

that if they comply with the Disclosure Act, their trade secrets may not remain secret." Since the Act makes clear that the state might disclose trade secret information, the argument goes, the companies cannot submit their information to the state and then later claim that any proposed public dissemination is unconstitutional. On that view, if the tobacco companies choose to run the risk of such public dissemination in order to continue doing business in the state, they "can hardly argue that [their] reasonable investment-backed expectations are disturbed when [Massachusetts] acts to . . . disclose the data in a manner that was authorized by law at the time of submission." Ruckelshaus v. Monsanto Co., 467 U.S. 986, 1006-07 (1984).

I do not think the choice is so stark. Unlike the regulatory scheme at issue in Monsanto, the Disclosure Act contains mechanisms by which the tobacco companies can protect their trade secrets from public dissemination even after submitting them to the state. If Massachusetts proposes to publicize any or all of the information contained in a tobacco company's annual report, the company can stay disclosure by filing an as-applied challenge in a court of competent jurisdiction. See Mass. Regs. Code tit. 105, § 660.200(G) (1999). In the alternative -- or in the event such a challenge fails -- the company can withdraw its products from the Massachusetts market. See id. § 660.200(F).

Nor do I agree that future as-applied challenges necessarily will fail because the tobacco companies' right to protect the confidentiality of their trade secrets will dissolve the moment they submit those secrets to the state. Under the Act and its implementing regulations, a public disclosure is "authorized by law," Monsanto, 467 U.S. at 1007, only if the tobacco companies do not exercise their right to stay disclosure by filing a timely challenge in court. See Mass. Regs. Code tit. 105, § 660.200(G)(2). Indeed, the regulations state explicitly that Massachusetts "shall treat [the ingredient lists] as confidential unless and until . . . a determination to release the information has been made in accordance with [the Disclosure Act] . . . and no complaint has been filed in a court of competent jurisdiction challenging disclosure of the information on the grounds that disclosure would make available to the public a trade secret." Id. Thus, Massachusetts's ability to disclose the tobacco companies' trade secrets is expressly conditioned on the companies' right to resist any such disclosure through an as-applied challenge. It would border on the absurd to reject such a challenge on the ground that the tobacco companies had "implicitly consented" to the very disclosure being resisted. Monsanto, 467 U.S. at 1021 (O'Connor, J., concurring in part).

In sum, I disagree with Judge Torruella's conclusion that the Disclosure Act is facially unconstitutional because it requires

tobacco companies to submit their trade secrets to the state without any guarantees of confidentiality. The implementing regulations contain an unambiguous promise of confidentiality. Therefore, the initial act of submission to the state is not enough to destroy the value of the trade secrets. It is only when those secrets actually are made available to the public that the tobacco companies' property interest dissolves. That, of course, brings us back to where we began: the relevant event for purposes of the Takings Clause is the actual (or imminent) disclosure of the tobacco companies' trade secrets. As I explained above -- and as Judge Torruella appears to recognize -- the constitutionality of any given disclosure depends on how much, and what sort of, information Massachusetts proposes to make public. Accordingly, the Act is not unconstitutional in every application, and the tobacco companies' facial challenge should fail.

II. DUE PROCESS

The tobacco companies also argue that the Disclosure Act denies them due process of law by permitting the state to destroy the value of their trade secrets without an adequate pre-deprivation hearing. I agree that the Disclosure Act authorizes the state to deprive the tobacco companies of a protected property interest in their trade secrets. However, I find no merit in the tobacco companies' contention that the Act fails to meet the standards of the Due Process Clause.

As explained above, Massachusetts has enacted several regulations that contain important procedural safeguards. Under the regulations, Massachusetts must provide the tobacco companies sixty days' written notice prior to publicizing any information in the ingredient lists. Mass. Regs. Code tit. 105, § 660.200(E). During that period, the tobacco companies may comment on Massachusetts's decision to disseminate the information. Id. at § 660.200(A). Moreover, the tobacco companies may forestall any threatened disclosure by filing a lawsuit in a court of competent jurisdiction. Id. at § 660.200(G)(2).

Notwithstanding the unambiguous language of the regulations, the tobacco companies complain that the Act fails to "provide a meaningful opportunity for judicial review before valuable trade secrets concededly worth millions of dollars are disclosed and destroyed." In a footnote, they add that the protections provided in § 660.200(G) -- which delays any proposed disclosure until the completion of the sixty day notice period and/or any timely-filed lawsuit²⁸ -- are inadequate because "[t]he

²⁸ The regulations state, in pertinent part:

(G) The Department shall treat information submitted pursuant to 105 CMR 660.101 as confidential unless and until:

...

(2) a determination to release the information is made in accordance with 105 CMR 660.200(A) through (E), the 60 day period referred to in 105 CMR 660.200(E) has elapsed, and no complaint has been filed in a court of competent jurisdiction challenging disclosure of the

Act itself states that ingredient information 'shall be' a public record after the statutory determinations are made, and as such its production may be compelled by third parties regardless of the 'pull back' option." That is plainly incorrect. Although reports submitted by the tobacco companies become public records by the terms of the Disclosure Act, that same Act states that "before any public disclosure," the department must undertake certain procedures to ensure that the information being released to the public will not violate the Takings Clause. These procedures are described both in the statute and in the regulations enacted pursuant to it. The department must abide by these procedures in considering its own disclosure under the Disclosure Act or in

information on the grounds that disclosure would make available to the public a trade secret; [or]

(3) disclosure of the information is authorized by judicial decision and the time for appeal in a court of competent jurisdiction has passed;

...

(H) In the event that a manufacturer files a complaint in a court of competent jurisdiction within the 60 day notice period specified in 105 CMR 660.200(E), challenging a proposed disclosure of information by the Department on the grounds that disclosure would make available to the public a trade secret, the Department shall not disclose any of the information in question unless and until:

(1) the parties agree in writing to disclosure; or

(2) the court renders a decision authorizing disclosure; and

(3) the time has passed for filing an appeal of the decision in a court of competent jurisdiction.

Mass. Regs. Code tit. 105, § 660.200.

responding to requests for information from third parties under the public records law, Mass. Gen. Laws, ch. 66, § 10(b).

The tobacco companies argue that the regulatory amendments setting forth the "pull-back" option, § 660.200(G)(2), will not preclude a third party from compelling inspection under the public records law because the regulations contravene the terms of the Disclosure Act. That is not so. "An administrative agency has jurisdiction to establish regulations that bear a rational relation to the statutory purpose." Globe News. Co. v. Beacon Hill Architectural Comm., 659 N.E.2d 710, 717 (Mass. 1996). Although the Disclosure Act contemplates the possibility that information submitted by the companies may be disclosed to the public, it also contains provisions intended to protect the state from engaging in unconstitutional activity. The statute requires the department to "request the advice of the attorney general" on whether the intended disclosure "would constitute an unconstitutional taking of property." Mass. Gen. Laws ch. 94 § 307B. The "pull-back" regulations provide an extra layer of protection by allowing the tobacco companies to seek a judicial determination of the same question before there is any disclosure. The Legislature's intent in addressing the takings issue is apparent -- at no point should the department engage in any action that would violate the Takings Clause. Instead of contradicting the statute, as the companies

argue, the regulations actually serve the unmistakable intent of the Legislature.²⁹

Therefore, it simply is not true that, notwithstanding the regulations, "third parties" will be able to compel disclosure of the tobacco companies' trade secrets under Massachusetts's public records statute. As the Commonwealth argued in its briefs, "the Disclosure Act actually limits the pre-existing reach of the public records law, by providing that tobacco ingredients can be made public only if the Act's conditions are met." Thus, the tobacco companies will have an opportunity for "meaningful judicial review" prior to any threatened deprivation. Their due process challenge fails on its own terms.

For the foregoing reasons, I respectfully dissent.

²⁹ Although the Disclosure Act explicitly states that the annual reports submitted by the tobacco companies pursuant to the Act are public records, the additional provisions of the Act and the supplemental regulations barring disclosure until there is compliance with certain procedures produces a result that is comparable to the result contemplated by Mass. Gen. Laws ch. 4, § 7, cl. 26(a) of the public records law. Under that subsection, materials or data "specifically or by necessary implication exempted from disclosure by statute" will not be considered public records, and therefore, are not open to inspection by the public. See Ottaway News, Inc. v. Appeals Court, 362 N.E.2d 1189, 1193-94 (Mass. 1977) (exempting from the definition of "public records" bank examination reports collected pursuant to a statute providing for their confidentiality).